As the United States Air Force becomes increasingly dependent on energy at installations in order to execute its mission, the Office of the Deputy Assistant Secretary for Environment, Safety, and Infrastructure is piloting the development of an Energy-as-a-Service business model to better support Air Force installations in meeting their energy requirements.

Did You Know...

The "as-a-service" business model is growing in the commercial energy sector, and the Air Force is excited to be at the forefront of testing it within the federal government. The Air Force is seeking to leverage lessons learned and innovation from industry in order to better meet increasingly complex and stringent mission owner energy requirements.

Continue checking safie.hq.af.mil/installationenergy for updates.

Energy-as-a-Service

Why it Matters

The Air Force needs energy to fly, fight, and win. Air Force installations serve as weapon systems platforms and require assured energy supplies, particularly electricity, to conduct the mission. Under Energy-as-a-Service (EaaS), the Air Force will partner with industry to ensure power is available when, where, and how it’s needed so Airmen can focus on the mission.

EaaS Model

Through the EaaS business model, the Air Force envisions realigning energy procurement, operations, and management functions through a single industry provider to cost effectively and comprehensively deliver reliable and resilient energy to mission owners. To accomplish this, the EaaS provider would be responsible for optimizing the integration of the energy delivery chain (Figure 1), which covers commercial energy supply procurement, distribution, onsite generation, and load management. Consistent with the “as-a-service” business model, the Air Force is taking a technology agnostic approach and focusing on the desired level of service instead of prescribing technologies or exact technical solutions.

Figure 1: Installation Energy Delivery Chain.
EaaS Pilots

In 2017, two pilot sites – Altus Air Force Base in Oklahoma and Hanscom Air Force Base in Massachusetts – were selected to demonstrate EaaS. The two pilot locations represent different missions and state regulatory environments, but together provide a unique opportunity to understand how EaaS may be implemented within the Air Force. Because of the differing conditions at each installation, the pathway to achieve EaaS outcomes has diverged, but both are leveraging a new approach by pursuing a single provider to integrate the installation energy delivery chain.

Altus Air Force Base Update

Since the October 2018 release of a sole source justification and Request for Proposal (RFP) to the local electric utility, the Altus EaaS effort has been focused on carrying out a detailed engineering study to inform the EaaS solicitation response. This study comprised four focus areas: system inventory and engineering analysis, resilience, energy efficiency and demand management, and a cybersecurity review. The outcomes of this study help establish a starting point from which the local utility can propose and prioritize efforts to deliver resilient, reliable, and cost-effective electricity to Altus Air Force Base. The RFP response and associated comprehensive energy plan is anticipated in late Summer 2020.

Hanscom Air Force Base Update

Based on the feedback received from a April 2019 Request for Information, the Air Force determined Other Transaction Authority (OTA) 10 U.S.C. § 2371b, Authority of the Department of Defense to carry out certain prototype projects, was both a viable and appropriate pathway forward. Under OTA, the Air Force can collaborate with an industry partner that is competitively selected in order to refine requirements within this new business model, in a manner similar to the sole source arrangement for the Altus pilot. In May 2020, the Air Force released a draft Request for White Papers (RWP) for comment and anticipates a final RWP in Summer 2020.

What’s Next

For the remainder of Fiscal Year 2020, the Air Force will continue the solicitation activities at both EaaS pilot locations, anticipating an RFP response for Altus Air Force Base, and targeting a solicitation release and vendor selection for Hanscom Air Force Base.

The Department of the Air Force is taking a resilience-focused approach to future energy and water projects concentrated on providing strategic agility for missions and installations.

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